CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

ORDER NO. 88-119
NPDES NO. CA 0029394

WASTE DISCHARGE REQUIREMENTS FOR:
CITY OF OAKLAND REDEVELOPMENT AGENCY
11th AND WEBSTER STREETS
OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. The City of Oakland Redevelopment Agency (hereinafter called the discharger) owned the property bounded by 10th, 11th, Webster and Franklin Streets in Oakland, California. In 1987, underground fuel tanks were removed from the property, and soil contamination was noted at that time. Monitoring wells drilled subsequent to tank removal revealed that the groundwater had also been contaminated by the fuel, the constituents of which include benzene, toluene, xylenes and ethylbenzene.

2. Recently, the City of Oakland sold the property to the East Bay Municipal Utility District (EBMUD), which is now engaged in construction and dewatering activities on the site. The effluent from the dewatering system was originally discharged, after treatment with carbon filters, to the sanitary sewer under a Temporary Wastewater Discharge Permit issued by EBMUD. By application dated February 1, 1988, the discharger had applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES). In April, the Executive Officer of the Board authorized approval of interim discharge prior to permit adoption after a review of the effluent data showed that the concentrations being discharged were within the limits that would be established in this permit.

3. EBMUD is operating a groundwater extraction system to dewater this site during construction of a building below grade. The City of Oakland operates the treatment system used to treat the polluted water prior to discharge. Operation of the dewatering system beyond the construction period, or operation of another

groundwater cleanup system, may be required to contain and cleanup polluted groundwater.

4. Based upon the data from the groundwater investigation thus far, it is not clear that the current cleanup system will contain and remediate all polluted groundwater, as the extent of the pollution has not yet been defined. Additional investigation is needed to determine the extent of the groundwater pollution. The performance of the groundwater cleanup system will be evaluated subsequent to pollution definition to determine the need, for addtional extraction wells.

5. Waste 001 may consist of a maximum flow of 216,000 gallons per day (gpd) and an average flow of 72,000 gpd, according to the permit application. The average flow for the month of May, 1988, was approximately 27,000 gpd. The polluted groundwater is pumped from extraction wells, treated using carbon filtration, and discharged into a storm drain on Webster Street. This storm drain discharges into the Oakland Inner Harbor and the San Francisco Bay.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay and contains discharge prohibitions applicable to shallow water discharges in these areas.

7. The existing and potential beneficial uses of San Francisco Bay include:

-Industrial service and process supply
-Contact and non-contact recreation
-Navigation
-Commercial and sport fishing
-Preservation of rare and endangered species
-Fish spawning and migration
-Wildlife habitat
-Shellfish harvesting
-Estuarine habitat

8. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's dewatering and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

9. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies, and best engineering judgement.

10. The issuance of waste discharge requirements for the

discharge is exempt from the provisions of Chapter 3, (commencing with Section 15000), Division 6, Title 14 (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 13389 of the California Water Code.

11. The issuance of waste discharge requirements for the discharge is categorically exempt from the provisions of Chapter 3, (commencing with Section 15000), Division 6, Title 14 (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 15107 of that Chapter (Class 7: Actions by Regulatory Agencies for Protection of the Environment).

12. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and Guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The effluent at the point of discharge to the Webster Street storm drain shall not contain constituents in excess of the following limit:

Constituent	Unit	Instantaneous Maximum
Chlorobenzene	ug/l	5.0
1,2-Dichloroethane	ug/l	5.0
1,2-Dichloropropane	ug/l	5.0
Ethylene Dibromide	ug/l	0.01
Trichloroethylene	ug/l	5.0
1,1,2-Trichloroethane	ug/l	5.0
Benzene	ug/l	5.0
Toluene	ug/l	0.5
Xylenes	ug/l	5.0
Ethylbenzene	ug/l	5.0
Total Petroleum Hydrocarbons identified as gasoline	ug/l	50
Lead	ug/l	5.6
Total Residual Chlorine	ug/l	0.0

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. Toxicity: The survival of test fishes in 96-hour static renewal bioassays of the discharge of waste 001 shall be a median of 90 percent survival and a 90 percentile value of not less than 70 percent survival. The bioassays shall be performed using either rainbow trout or fathead minnow.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin:

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or water fowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

b. Un-ionized Ammonia: The concentration of un-ionized ammonia shall not exceed a maximum at any time of 0.4 mg/l as N and an annual median of 0.025 mg/l as N.

c. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations (s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

3. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

Provisions

1. The discharger shall comply with all sections of this Order immediately upon discharge.

2. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. The discharger shall submit an operation and maintenance plan acceptable to the Executive Officer if chemical additions are added to the waste stream for the control of scaling or biological growth.

5. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated December 1986, except items B.2, B.3, C.8, and C.11, and the effluent limit for lead. The effluent limit for lead shall be complied with immediately or, within thirty days of a discovery of non-compliance, the discharger will submit a proposal for development of an alternate effluent limit for lead. This proposal should address receiving water quality impacts, source control options, and development of a rationale for the alternate limit based upon this rationale. During the period between the discovery of non-compliance and Regional Board consideration of an alternate limit, the discharge shall not contain lead in excess of 10 ppb.

6. This Order expires July 20, 1993 and the discharger must file a report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

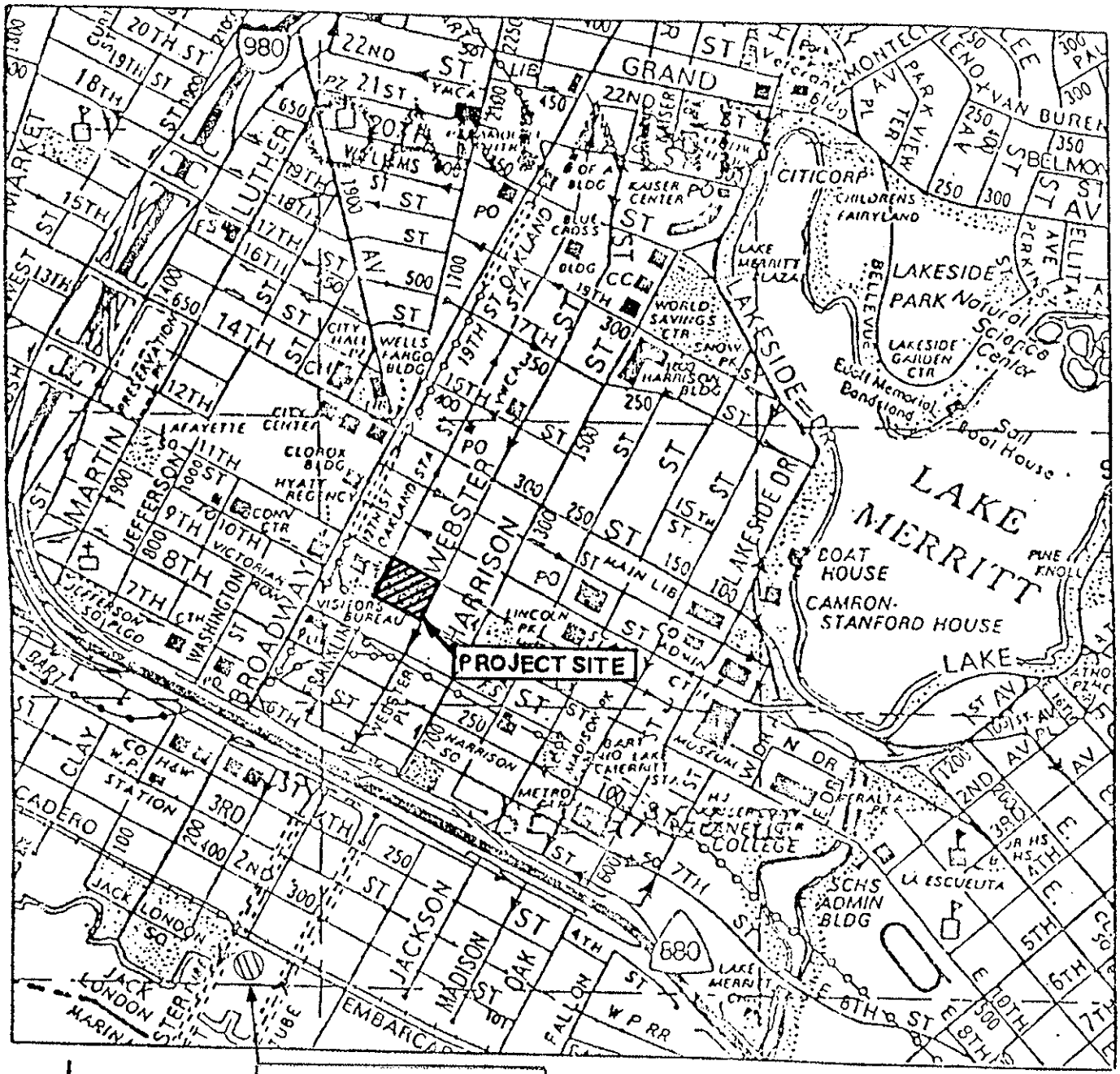
7. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective at

the end of ten days from date of hearing provided the Regional Administrator, U.S. Environmental Protection Agency, has no objection.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on July 20, 1988.

STEVEN R. RITCHIE
Executive Officer

Attachments: Standard Provisions & Reporting Requirements, December 1986.
Self-Monitoring Program
Location Map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

LOCATION MAP

City of Oakland Redevelopment Agency
11th and Webster Streets, Oakland

DRAWN BY:	DATE:	DRWG NO. 001

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF MONITORING PROGRAM, PART B, FOR:

CITY OF OAKLAND REDEVELOPMENT AGENCY
11TH AND WEBSTER STREETS
OAKLAND, ALAMEDA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station

I-1	At a point in the groundwater extraction/ treatment system immediately prior to any treatment.

B. Effluent

Station

E-1	At a point in the groundwater extraction/ treatment system immediately following treatment at a point before discharging into the storm drain.

C. RECEIVING WATER

Station

C-1	At a point in the Oakland Inner Harbor at least 100 feet but no more than 200 feet from the point the storm drain discharges into the Oakland Inner Harbor.

II. MISCELLANEOUS REPORTING

At least 30 days before any chemicals are utilized in or added to the treatment system, they shall be reported to the Executive Officer for review and approval.

III. START-UP PHASE REPORTING

During the start-up phase for a continuous flow-through system, sampling must occur daily for the first five days. All samples must be submitted to a certified laboratory for 24 hour analyses. On the first day of the start-up phase, the system should be allowed to run for two hours or until stabilized; then, the influent and effluent should be sampled, and these samples should be submitted for analyses within 24 hours. Prior to receipt of

the results of the initial samples, any effluent should be discharged into a holding tank (ie, batched; not discharged into the storm drain) until the results of the analyses show the discharge to be within the effluent limits established in the NPDES permit. Discharge into the storm drain can only commence after confirmation that the discharge is in compliance with the NPDES discharge limitations. The discharge can continue UNLESS any lab results indicate a violation, in which case the discharge should be batched or the system should be turned off, the problem corrected, and in some cases a new start-up phase of daily sampling (for 5 days) using 24 hour turn around should be initiated.

After the five day start-up phase a report shall be submitted to the RWQCB that presents the results of the lab analyses, flow rates, chain of custody forms, and describes any changes or modifications of the treatment system. This report should be submitted to the RWQCB no more than fifteen days after the end of the start-up phase.

IV. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

V. SHUT DOWN PROCEDURES

The discharge must be stopped or routed to a holding tank (not discharged into the storm drain) immediately upon laboratory verification that the discharge is in violation of any of the discharge limitations established in the NPDES permit. A report should be submitted within 15 days of the date of any violation to the RWQCB that describes the violation, the estimated volume of water that was discharged in violation of discharge limits, what corrective action was taken or is planned, and how the discharger will verify, or has verified, that future discharges will not impact or threaten to impact waters of the State.

VI. MODIFICATIONS TO PART A

All items of Self Monitoring Part A, dated December 1986 and as modified January 1987 shall be complied with except for the following modifications:

A. Delete Sections D.2.d, D.2.g, E.1., E.2, E.3 and E.4.

B. Add the following as Section F.4:

4. A tabulation shall be maintained showing the total quarterly volume of spent activated carbon (in cubic feet) from each treatment unit and the disposal site location.

C. Section G.4.b shall be changed to read as follows:

Compliance Evaluation Summary

"Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared similar to the example shown in APPENDIX A (attached). The discharger will prepare the format substituting for the example parameters those parameters and requirement limits for influent, effluent and receiving water constituents specified in the permit."

D. The first paragraph of Section G.4.d. shall be changed to read as follows:

"Each report shall include tabulations of the results from each required analysis specified in Part B by date, time, type of sample, detection limit, station, and shall be signed by the laboratory director. The report format will be prepared similar to the examples shown in APPENDIX B, substituting those parameters specified in the permit for the parameters given in the example."

E. Information requested under Section G.4.e shall be prepared in a format similar to EPA Form 3320-1 and shall be submitted only to the Regional Board.

F. Section G.5 shall be modified to read as follows:

Annual Reporting

By January 30 of each year, the discharger shall submit in place of the end of the year monthly report, an annual report to the Regional Board covering the previous calender year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX C (attached) substituting those parameters specified in the permit for the parameters given in the example and should be maintained and submitted with each regular self-monitoring report."

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharger requirements established in Regional Board Order No. 88-119.

2. Was adopted by the Board on July 20, 1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.

Steven R. Ritchie
Executive Officer

Attachments: Table 1
Appendices: A,B,C,D,E

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF MONITORING PROGRAM PART B, TABLE 1, FOR:

CITY OF OAKLAND REDEVELOPMENT AGENCY
11TH AND WEBSTER STREETS
OAKLAND, ALAMEDA COUNTY

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SAMPLING STATION >>>>	I-1	E-1	C-1	
TYPE OF SAMPLE	G	G	G	
Flow Rate (gal/day)		C		
pH (units)	D/M	D/M		
Temperature (deg. C)	D/M	D/M		
Dissolved Oxygen (mg/l and % saturation)	D/M	D/M		
Electrical Conductivity	D/M	D/M		
Priority Pollutant Metals	BA	BA		
EPA 504, 601 AND 602 (1)	D/W/ BW/M	D/W/ BW/M		
Modified EPA 8015 for Total Petroleum Hydrocarbons as per SF Bay RWQCB Fuel Leak Guidelines	D/W/ BW/M	D/W/ BW/M		
Total Residual Chlorine	D/W/ BW/M	D/W/ BW/M		
Toxicity		A		

LEGEND FOR TABLE 1

G = grab sample
C = continuos flow readings; report average daily flow based on weekly total
M = once each month
D/W/BW/M = daily for five days during system startup; weekly thereafter until sufficient data, as determined by the Executive Officer, is collected to demonstrate that less frequent sampling (biweekly (BW) or monthly (M)) is appropriate.
D/M= daily for five days during system startup; monthly thereafter.
BA= once during first day of operation; biannually thereafter.
A= once during first week of operation; annually thereafter.

(1) The ten largest peaks in the chromatogram, other than the priority pollutants listed in the method, shall be identified.